DECLARATION OF INTENT

IMPLEMENTATION OF ENVIRONMENTAL POLICY FOR THE OIL AND GAS INDUSTRY

June 2-nd 1995

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Declaration of Intent

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DECLARATION OF INTENT

IMPLEMENTATION OF ENVIRONMENTAL POLICY IN THE OIL AND GAS INDUSTRY

Section I

Parties

For the government:

The Minister of Economic Affairs, the Minister of Housing, Physical Planning and the Environment, and the Minister of Transport and Public Works, jointly acting as the administrative body and the representative of the State of the Netherlands, hereinafter referred to as `the government'

and,

for the business community:

2. The Netherlands Oil and Gas Exploration and Production Association (NOGEPA), represented in accordance with its Articles of Association by the enterprises, as listed in Item 3

and,

3. The enterprises which, in the statements attached to this Declaration of Intent, have expressed their willingness to participate in this declaration, in respect of the installation(s) and drilling activities under their management;

Amoco Netherlands B.V.

Chevron U.S.A. Inc., the Netherlands Branch

Clyde Petroleum Exploration B.V.

Continental Netherlands Oil Company

Elf Petroland B.V.

Hardy Oil and Gas UK Ltd.

Lasmo Netherlands B.V.

Nederlandse Aardolie Maatschappij B.V.

Occidental Netherlands, Inc.

PanCanadian Petroleum Netherlands B.V.

RWE-DEA A.G. fhr Mineral`l und Chemie

Unocal Netherlands B.V.

VEBA OIL Nederland B.V.

Wintershall Noordzee B.V.

hereinafter referred to as `the oil and gas industry'.

4. The government and the oil and gas industry, jointly referred to as `the parties'.

Section II

Whereas:

- a. The government's aim is to interpret and realize the objectives of environmental policy, as described in the National Environmental Policy Plan (NEPP)¹, the National Environmental Policy Plan Plus(NEPP Plus)² and the Second National Environmental Policy Plan (NEPP 2)³, the Third Water Management Paper, the North Sea Water System Plan (WSP), the Water Evaluation Paper and the State Waterways Management Plan, the Energy Conservation Paper and the Energy Conservation Follow-up Paper, in consultation with the target groups.
- b. In as far as this policy relates to the oil and gas industry as a direct source of environmental pollution, the government wishes to enter into this Declaration of Intent with the oil and gas industry, in order to realize the policy objectives.
- c. The government, in view of the Cabinet positions taken on the recommendations of the Commission for Testing of Legislative Projects on Covenants (TK 1992-1993, 22800 VI, No. 4 and TK 1993-1994, 23400, 53 XI), regards this Declaration of Intent firstly as support for the statutory onshore regime and secondly, as a more appropriate and effective instrument for the offshore sector than the existing legal instruments.
- d. As part of the target group policy, the parties consider it expedient to realise specific agreements between the government and the oil and gas industry, which will be reflected in the government's environmental policy in licensing procedures, pursuant to environmental legislation, for installations belonging to this branch of industry and for drilling activities.
- e. The government considers it expedient that the oil and gas industry should accept its responsibility for control of environmental pollution caused by its activities, and that the enterprises should themselves take initiatives aimed at reducing environmental pollution caused by installations belonging to the oil and gas industry and drilling activities, taking into account the agreements to be reached in this Declaration of Intent.

Second Chamber of Parliament, 1988-1989 Session, 21137, Nos. 1-2.

Second Chamber of Parliament, 1989-1990 Session, 31137, Nos. 20-21.

Second Chamber of Parliament, 1993-1994 Session, 23560, Nos. 1-2.

- f. The government, in turn, is prepared to make every effort necessary to expedite the implementation of the agreements in this Declaration of Intent.
- g. The oil and gas industry is prepared to lay down its responsibilities for controlling environmental pollution caused by its activities in this Declaration of Intent, and is prepared to take initiatives aimed at the actual reduction of environmental pollution in accordance with the procedures laid down in this Declaration of Intent, taking technical and economic possibilities into account.

Section III

Hereby declare that, in view of the foregoing, they agree as follows:

1. <u>Definition of Terms</u>

The following definitions apply for the purposes of this Declaration of Intent:

*	The government	The parties referred to in Section I, Item 1.			
*	The oil and gas industry	The parties referred to in Section I, Items 2 and 3.			
*	Installations	The mining installations belonging to the oil and gas industry for the purpose of exploration for, and production of minerals, with the exception of drilling installations.			
*	Existing installations	The installations listed in the latest version of Appendix V. Installations or parts thereof, as listed in Appendix V, that are refurbished will remain classified as existing installations.			
*	New installations	Installations for which construction work started after this Declaration of Intent was signed, and which are not included in Appendix V.			
*	Enterprises	Legal persons that manage one or more of the installations belonging to the oil and gas industry.			
*	Consultative Group	The Consultative Group and the consulting system as described in Appendix II.			
*	Integrated Environmental Target Plan (IETP)	The summary presented in Appendix I of the environmental policy objectives formulated by the government for the oil and gas industry on the basis of the NEPP, the NEPP-Plus, and other governmental plans published when this Declaration of Intent is signed, such as the 3rd Water Management Paper, the WSP, the Water Evaluation Paper, the State Waterways Management Plan, the North Sea Action Plan (NAP), the Energy Conservation Paper, the Energy Conservation Follow-up Paper and the NEPP-2.			
*	Corporate environ-	A plan formulated by an enterprise for			

mental plan (CEP)

an installation, or a group of similar installations, and for drilling activities, covering a period of four years, with a description of proposed and current environmental activities and efforts with respect to these installations and drilling activities.

* Industrial environmental Plan (IEP) A plan formulated by NOGEPA, covering a period of four years. The IEP is an aggregate of all CEPs and describes proposed and current environmental activities and efforts with respect to installations and drilling activities. It can be compared with the IETP for the entire branch.

- * Industrial
 Annual Report
- A document drawn up annually by NOGEPA, reporting on the implementation of the IEP.
- * Corporate annual report

A document drawn up annually by individual enterprises, reporting in detail on the implementation of the CEP for each installation or group of similar installations, and for drilling activities.

* Best available technology

Included in the best available technology are measures that are successfully applied to restrict emissions from a particular source, either as an integrated part of a process or as a supplementary technology, in an average, financially sound installation in the onshore or offshore sector of the oil and gas industry, in the Netherlands or elsewhere, or in accordance with the regulations or technologies from other processes, or measures which have been shown to be feasible for the source in question in successful demonstration projects conducted on an industrial scale. If there are substantial variations in the size of the installations within the onshore or offshore sector of the oil and gas industry, then the level of facilities in installations of a similar size will be regarded as the norm. More detailed interpretations of the term `best available technology' will be made in accordance with the general principles of the Netherlands Guidelines on Atmospheric Emissions (NER) (May 1992 issue, Section 1.3).

* Target group consultation

Talks conducted between the oil and gas industry and the government prior to the signing of the Declaration of Intent.

2. Agreed Objectives

The environmental policy of the parties is aimed at the realization of the IETP with respect to the exploration and production activities of the oil and gas industry in the Netherlands, including the Dutch section of the Continental Shelf.

3. Basic Principles

The parties acknowledge the following basic principles for the implementation of this Declaration of Intent:

- a. The basic principles for the agreements in this Declaration of Intent are set out in the papers entitled `Approach to Target Group Policy for Industry' and `Implementation of Environmental Policy for the Industry Target Group', as well as in the letter from the Minister of Housing, Physical Planning and the Environment to the Second Chamber Standing Environmental Management Committee, dated 21 January 1992.
- b. This Declaration of Intent does not prejudice the legal rights and obligations of the parties and third parties, such as the implementation of generally binding regulations or possibilities of appeal, or the outcome of legal procedures relating to valid permits.
- c. The target group policy and its implementation, as described in this Declaration of Intent, will be developed as part of the government's licensing duties (in as far as applicable), responsibilities and powers with respect to the oil and gas industry as a direct source of environmental pollution.
- d. Regional specification can be applied to parts of the IETP, taking into account the criteria listed in Appendix IV and guidelines based on these, providing an assessment of these criteria in accordance with current insights.
- e. If policy implemented or established in the past reduces the environmental burden to a greater extent than is anticipated in the IETP, such policy will remain in effect in full.
- f. Where applicable, this Declaration of Intent is deemed to comply with the principle of environmental law, that measures taken in respect of

⁴ Second Chamber, 1989-1990 Session, 21137, No. 27.

⁵Second Chamber, 1991-1992 Session, 21137, No. 103.

installations will be those that ensure the greatest possible environmental protection, unless that cannot reasonably be required.

- q. The following criteria will apply for prioritisation of measures:
 - * Measures aimed at controlling health, safety and environmental hazards, based on the following principles:
 - health, safety and environmental damage
 - prevention takes precedence over `cure' (clean-up)
 - * Accumulation of measures
 - * Cost efficiency of the measures
 - * Measures which concur with existing investment and policy plans.

Reduction measures can affect emissions of more than one substance. Moreover, the reduction measures selected will not always relate to the same substances, or affect emissions of the same substances to the same extent. In order to establish the right priorities, cost efficiency and the relative importance that can be attached to the various environmental effects will be taken into account as far as possible. Generally speaking, this will only be possible in relation to emissions with supra-local effects. As far as possible, relative importance will be determined in accordance with national environmental policy, current knowledge on the different environmental effects and the extent to which the emissions of different substances contribute to these effects.

4. Agreements

The parties have reached the following agreements:

- a. A Consultative Group will be formed, consisting of representatives of the government and of the oil and gas industry. The membership, tasks and working methods of the Consultative Group are described in Appendix II.
- b. On the basis of general problems, new insights, including policy insights in relation to the environment, environmental technology and energy policy, or altered business economic conditions affecting the onshore and offshore sectors of the oil and gas industry, the Consultative Group may issue proposals to the parties for adjustments

As is customary in LCA. Environmentally directed Life Cycle Analysis of Products, University of Leiden: Centre for Environmental Studies, 1992.

With the aid of the REIM-model (Ranking of Environmental Investments Model, University of Leiden, Centre for Environmental Studies 1993) the priorities can be determined, in as far as this concerns environmental effects of which the relative importance has been established.

- of the IETP by the government, either raising or lowering the targets.
- c. For the purpose of realising the IETP, the enterprises will draw up CEPs and NOGEPA the IEP, which will be assessed for compliance with this Declaration of Intent and environmental law by the Minister of Economic Affairs, with the assistance of the State Supervision of Mines (SSM) and, in relation to relevant issues, by the Minister of Housing, Physical Planning and the Environment and the Minister of Transport and Public Works, in accordance with this Declaration of Intent. A model⁸ has been developed by the Ministry of Housing, Physical Planning and the Environment as a guide for the preparation of CEPs.
- d. The studies conducted as part of the target group talks between the government and the oil and gas industry (DORN studies), as approved prior to the signing of this Declaration of Intent, will be taken into account in the preparation of the first CEPs. The emission profiles for water, air and waste flows, as supplied by NOGEPA, will also be taken into account.
- e. On the basis of the final IEP and CEPs, as described in Section III, Item 5.1.a., the Consultative Group will determine whether the latest IETP for the oil and gas industry will be realized and which problems could arise. With a view to the preparation of subsequent IEPs and CEPs, the Consultative Group will commission studies on the technological and economic feasibility of the relevant aspects of the IETP in relation to any problems encountered.
- f. Within the framework of the consultation of the branch, the investigations mentioned in Section III, Paragraph 4e, could give the Consultative Group grounds to develop parts of the current IETP into proposals for specific guidelines and programmes, particularly with respect to subsequent IEPs and CEPs.
- g. Should any sections of the IETP for the oil and gas industry require amendment on the basis of proposals made by the Consultative Group, this will take place mainly in the form of further phasing in time of the relevant section. If the realization of part of the IETP is deferred, the Consultative Group will consider whether realization of another section can reasonably be brought forward.
- h. Every Consultative Group proposal for amendment of the IETP (with the exception of the provisions of Section III, Paragraph 4.g, in as far as the phasing does not exceed a period of four years) will be submitted to the parties for approval.

Guidelines for preparation of corporate environmental plans, published by the Ministry of Housing, Physical Planning and the Environment in August 1993.

- i. For the purpose of integrating the basic principle that unnecessary pollution must be prevented, and the guidelines based on this describing the best available technology within the target group approach, the following applies in respect of the preparation and assessment of CEPs and the IEP.
 - 1. For existing installations, the situation within the installation is considered relevant and, except in the case described in Paragraph 4.i.2, the application of the current best available technology;
 - 2. If, as a result of future developments in the best available technology (e.g. the availability of new technologies, to be established in a future amendment of the guidelines under discussion), better results can be realised for certain sections of the IETP than with the technology laid down in the IETP, such new developments may result in the amendment of the relevant section of the IETP; in the event of such an amendment, the total efforts of the branch to realize the IETP and the prioritisation will be taken into account. The new technologies will not be required for installations already in operation until the amendment of the IETP has been finalized;
 - 3. The simultaneous cumulation of measures for one or more environmental compartments may be of such a scale that keeping to the implementation deadlines set in the guidelines mentioned in Paragraph 4.i.2, describing the best available technology, becomes impossible for financial reasons (including the competitive position and European and worldwide competition), or will not be cost efficient for the time being for the relevant installation(s). In this case, by agreement with the Minister of Economic Affairs, a justifiable departure from the implementation deadlines in the guidelines is permissible; however, such a departure may not result in non-realization of the IETP at the branch level.
 - 4. For new (parts of) installations, including replacements of existing (production) installations in accordance with the general basic principles of environmental policy, the best available technology will be applied and, therefore, the current version of the guidelines describing the best available technology.
 - 5. If a company decides to reutilise an existing offshore installation, or parts thereof, at another location, the necessary modifications for reutilisation will apply the best available technology.

After the SSM has presented its advice and, where relevant, by agreement with the Minister of Housing, Physical Planning and the Environment or the Minister of Transport and Public Works.

The Minister of Economic Affairs will determine whether environmental interests have been sufficiently taken into consideration.

- j. With the exception of sections or data defined as confidential business information, the following shall be regarded as public information:
 - 1) The offshore section of a CEP or IEP, before the Minister has given his view, within the meaning of Appendix III, Paragraph 2.4;
 - 2) A final CEP or IEP, after the Minister has given his view, within the meaning of Appendix III, Paragraph 2.11;
 - 3) The view of the Minister of Economic Affairs on a CEP or IEP;
 - 4) The annual company reports to the Minister of Economic Affairs on the implementation of the CEP, and the annual report on the implementation of the IEP, within the meaning of Section III, Paragraph 5.1.a.5;
 - 5) The view of the Minister of Economic Affairs¹¹ on the corporate annual reports and the industrial annual report, within the meaning of Section III, par. 5.1.a.5;
 - 6) The annual report of the Consultative Group, within the meaning of Appendix II, Item 1.4;
 - 7) The evaluation report, within the meaning of Section III, Paragraph 6.
- k. The costs of the Consultative Group, the project office and the adhoc working groups will be borne by the Ministry of Economic Affairs. The participating parties will bear the staff costs and the travel and accommodation expenses of their representatives. The costs of any research commissioned by the Consultative Group will be borne jointly by the authorities and NOGEPA, unless otherwise agreed. More detailed agreements regarding shares in the costs of research will be reached in the Consultative Group on this basis.
- 1. If required, the Consultative Group will formulate a plan in order to promote proper communications between the parties on issues relating to this Declaration of Intent.

See footnote 9.

See footnote 9.

- m. On the basis of functionality, within the framework of the agreements in this Declaration of Intent, the Consultative Group will develop a model for annual reports.
 - Arrangements will also be reached within this framework on the submission and inclusion of CEPs from enterprises that accede to this Declaration of Intent at a later date.
- n. In consultation with the enterprises, NOGEPA will investigate the possibilities for substitution of environmental measures, taking into account the supra-local nature of the emissions. The results of these investigations will be presented to the Consultative Group, with a request to develop proposals on that basis for inclusion in the CEPs and IEP.

5. Commitments

5.1 Commitments of the oil and gas industry

- a. 1. As a result commitment, enterprises must prepare CEPs once every four years for each installation or group of similar installations, and for drilling activities, making use of the inventories prepared by the oil and gas industry, in cooperation with the government or otherwise. NOGEPA will draw up the IEP.
 - 2. Each enterprise and NOGEPA will meet this result commitment for the first time by submitting to the Minister of Economic Affairs the draft CEPs and the draft IEP, within eight months of a date agreed by NOGEPA and the Minister of Economic Affairs, and no later than one year after the signing of this Declaration of Intent, as described in Appendix III, Paragraph 2.3.
 - 3. The contents of a CEP must satisfy the requirements and follow the procedure laid down in Appendix III.
 - 4. As a result commitment, the enterprises undertake to implement measures laid down in the CEPs for installations and activities which are not subject to licensing requirements under environmental legislation.
 - 5. As a result commitment, the enterprises and NOGEPA will submit an annual report to the Minister of Economic Affairs on the implementation of the CEP or IEP and on the actual progress, in accordance with the procedure described in Appendix III.
- b. CEPs will be formulated on the basis of the best available technology for each installation. In addition to the IETP, the enterprise may also refer to economic conditions aimed at the continuity of the installation or parts thereof, on the basis of reasonable profitability and in the light of energy supply (e.g. delivery commitments). In support of the phasing of measures for the

installation, the enterprise may also take into account environmental efforts made in relation to other installation(s) belonging to the same company.

This concerns measures which do not have a noticeable effect in the form of a significant improvement in environmental quality at the location of the installation.

- c. If the research referred to in Section III, Paragraph 4.e shows that the IETP will not be met at the branch level through application of the best available technology, then, within the framework of subsequent CEPs, the possibilities for further measures and their application must be described for each installation or group of similar installations, unless the Consultative Group makes other proposals in relation to Section III, Paragraph 4. Current and completed investment programmes for the realisation of the IETP, and the remaining life of the installation, must be taken into account in the application of further measures.
- d. Delays in action already in progress for the implementation of environmental policy must be avoided when the first CEPs are drawn up, unless the enterprise reaches agreement with the Minister of Economic Affairs 12 on such a delay for the relevant installation(s).

5.2 Commitments of the Government

- a. As a result commitment, the Minister of Economic Affairs¹³ shall assess and test each CEP and the IEP, or the corporate annual reports and the industrial annual report, in accordance with the procedures laid down in Appendix III, on behalf of the government.
- b. For installations that do not require a permit pursuant to the Environment Act, the Minister of Economic Affairs will take into account any suggestions made, preferably in writing, in the assessment and testing of CEPs. To this end, the offshore section of the draft IEP and the sections of draft CEPs relating to offshore issues will be available for inspection at the Ministry of Economic Affairs for a four-week period, to be announced in the State Gazette, subject to the provisions of Section III, Paragraph 4.j.
- c. The Minister of Economic Affairs will also take into account the provisions of Section III, Paragraph 5.1.b when assessing the draft environmental plans.
- d. If the Minister of Economic Affairs approves the CEPs and IEP, he will notify the enterprise in question or NOGEPA that he will make efforts to take the approved plan into consideration in the

See footnote 9.

See footnote 9.

implementation of environmental policy, including the issue of environmental permits.

- e. If a CEP relates to an installation requiring a permit, the Minister of Economic Affairs will ensure that all the elements of the CEP are formalized in the permit, without prejudice to the provisions of Section III, Paragraph 3.b.
- f. If the Minister of Economic Affairs¹⁴ takes the view that an enterprise is not implementing this Declaration of Intent satisfactorily, he will make every effort, through unilateral action in as far as his powers allow, to tighten environmental policy on the relevant installation(s) and any relevant permits. Specifically, this could include the following situations:
 - 1. An enterprise fails to prepare a CEP in accordance with the procedure described in Appendix III, or fails to report on the implementation of the CEP in accordance with Section III, Paragraph 5.1.d.;
 - 2. An enterprise fails, as shown, for example, by a CEP, to make a sufficient effort to realise the IETP (including through research), in terms of the criteria of environmental legislation;
 - 3. An enterprise fails to execute sections of the CEP as planned, as shown by the annual report, and is unable to produce any reasonable explanation;
 - 4. An enterprise unnecessarily delays the introduction of actions already taken for the implementation of environmental policy.

In the case of unilateral action, as referred to above, the Minister of Economic Affairs will take into account any further relevant agreements reached in the Consultative Group, without prejudice to the government's powers and responsibilities.

g. The Minister of Economic Affairs will make efforts to apply the instruments at his disposal to ensure that similar environmental efforts are ultimately realised for similar installations or drilling activities in the branch.

6. <u>Evaluation</u>

Every four years, starting three years after the submission of the first IEP and CEPs, the Consultative Group will evaluate the implementation of this Declaration of Intent, particularly in relation to the preparation of subsequent IEPs and CEPs. On the basis of these evaluations, the government and the oil and gas industry

See footnote 9.

will discuss whether and, if so, to what extent, the contents of this Declaration of Intent require adjustment. The government and the oil and gas industry will make efforts to ensure that such consultations are completed before the end of the year in which the evaluation commences.

7. Uncertainties relating to altered circumstances

If significant, unforeseen developments arise, such as developments relating to the environment and environmental technology insights, including policy insights, general environmental policy, legislation and jurisprudence, the national economic situation, energy policy, or international conditions, with significant consequences for the implementation of this Declaration of Intent, the government and the oil and gas industry will conduct talks in the Consultative Group to determine whether the contents of this Declaration of Intent require adjustment. If the implementation of this Declaration of Intent threatens to lead to serious, unwanted social and economic consequences for the oil and gas industry, the government and the oil and gas industry will reconsider the implementation of the commitments set out in this Declaration of Intent, through the Consultative Group.

8. International harmonisation

The Parties will make efforts, within their powers, to realise an environmental policy similar to international policies, particularly those pursued by OSPAR and the European Union (EU), in order to ensure that similar efforts are made to realise internationally agreed environmental targets throughout the North Sea Continental Shelf. If the environmental policy of other North Sea countries is persistently and substantially at variance with the policy formulated for the Netherlands, this could provide grounds for Consultative Group talks on a review of the IETP, taking into account the provisions of Section III, Paragraph 4.

9. Termination by one party

If Consultative Group talks, within the meaning of Section III, Paragraphs 4.b, 4.e, 4.g, 4.m, 4.n, 6, 7, 8 and 11, fail to produce agreement within six months, or if one of the parties fails to approve an adjustment of the IETP, within the meaning of Section III, Paragraph 4.h, either party named in Section 1 may terminate this agreement. The above period is deemed to commence as of the date on which either party notifies the other to this effect by registered letter. Either party may terminate the agreement, stating the reasons, on the basis of the results of an evaluation within the meaning of Section III, Paragraph 6.

10. Participation

In order to ensure the widest possible participation in this agreement by enterprises in the oil and gas industry, parties may accede to this Declaration of Intent after the date of signature, by means of a signed declaration from the enterprise in question, taking into consideration the agreements within the meaning of Section III, Paragraph 4.m. The said declaration should be addressed to the Minister of Economic Affairs and NOGEPA.

11. Civil Law Contract

This Declaration of Intent has the force of a civil law contract. Appendices I, II, III, IV and V to this Declaration of Intent form part of the Declaration of Intent. The same applies to changes or additions to these Appendices agreed after this Declaration of Intent is signed. Unless specifically defined as result commitments, the commitments of the parties bound by this Declaration of Intent are deemed to be effort commitments. If the implementation of this Declaration of Intent gives rise to disputes which cannot be resolved in the Consultative Group, such disputes may be submitted to the Civil Court in The Hague by the plaintiff.

12. Duration

This Declaration of Intent is contracted for the period to 31 December 2010, without prejudice to the stipulations of Section III, Paragraph 9.

APPENDIX I

INTEGRATED ENVIRONMENTAL TARGET PLAN

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INTEGRATED ENVIRONMENTAL TARGET PLAN FOR THE OIL AND GAS SECTOR (IETP)

1. Introduction

This Appendix formulates the Integrated Environmental Target Plan (IETP) for the oil and gas industry. The plan is based on integrated environmental targets for the entire industry which, in turn, have been taken from government (policy) plans such as the NEPP, the NEPP-plus, the NEPP 2, the Third Water Management Paper, the WSP, the Water Evaluation Paper, the State Waterways Management Plan, the Energy Conservation Paper and the Energy Conservation Follow-up Paper. The most relevant objectives of these plans are included in this IETP. Naturally, all the other elements of the plans (such as the basic principles and the grounds and conditions for policy implementation) also apply in full.

The base year used in the preparation of the IETP (1990) differs from the base year referred to in the NEPP and other covenants (1985). The reason for this is that detailed data on emissions in 1985 are not available for the oil and gas industry and it is not possible to extrapolate from 1990 back to 1985. It is assumed that average emissions in the 1985 to 1990 period were generally stable, so that the reduction targets in the NEPP and the subsequent papers apply in full.

In the preparation of the IETP for the oil and gas industry, the results of the survey on the nature and extent of discharges, emissions and waste flows in the oil and gas industry were used to determine emissions in the base year, 1990. The surveys were performed in this sector from 1990 onwards, as part of the target group consultations conducted with the sector at the branch level. The sector's estimate of future emissions, based on application of the best available technology and an economically acceptable environmental policy, will be used in the preparation of the first CEPs.

On the basis of the 1993 survey, the oil and gas industry indicated that, in its opinion and on the basis of current knowledge, a number of the targets set in the IETP are not feasible. Notes from NOGEPA have been included in the text with the relevant subjects. These notes show that in the opinion of the oil and gas industry, the IETP targets, which are based on general environmental policy, are probably not feasible, even with a reasonable environmental effort. Technical and economic factors (in existing installations) and the inevitable increase in energy consumption for gas storage and for gas production, due to the installation of compressors as gas fields become depleted, are the determining factors. The notes do not affect the procedure, as laid down in the Declaration of Intent, to be followed if agreed targets cannot be realised.

Both NOGEPA and the E&P Forum have developed environmental care systemS for the oil and gas industry. These can act as starting points for enterprises developing their own environmental care systems.

An environmental care system is a management tool for implementing the company's environmental policies and will enable enterprises to manage and reduce emissions more effectively.

2. Theme Climate change

Section CFCs, HCFCs and Halons

Targets The following has been formulated for the installations
 belonging to the sector:

- * Restricting to a minimum the leakage from equipment for which CFCs, HCFCs, halons or hazardous solvents are used;
- * Replacing hard CFCs, which are listed in Category 1 in the Appendix to the Decree on substances which deplete the ozone layer, by alternatives, reducing CFC consumption by 100% of the 1986 level by 1.1.1995;
- * Replacing halons with alternatives. Where alternatives are undesirable for safety reasons, the company can decide, by agreement with the licensing or supervisory authorities, to temporarily continue use of substances which are no longer in production. In such cases, these substances must be acquired from supply in the regenerated products market or from the company's own stocks;
- * Reducing consumption of HCFCs as much as possible;
- * Discontinuation of all 1.1.1-trichloric ethane consumption by 1.1.1996.

Effects

Deadlines are set for discontinuing production of CFCs and HCFCs in the Montreal Protocol and in EU Regulations. In preparation for the production stop, agreements on the phased reduction of the use of these substances have been reached with the industry in the CFC Action Programme for the Situation in the Netherlands. Both production and consumption of CFCs must be reduced to 85% of the 1986 level (or the 1989 level for substances added to the protocol later) by 1.1.1994, and to 100% by 1.1.1995.

For the time being, HCFCs are permitted as replacements for CFCs. A ceiling is set on consumption of HCFCs, i.e marketing or consumption of HCFC output by producers and importers (2.6% of CFC consumption in 1989, expressed in terms of ozone depletion potential). The ceiling will be lowered as follows:

0%	reduction by	01.01.1995
35%	**	01.01.2004
50%	"	01.01.2007
80%	"	01.01.2010
95%	"	01.01.2013
100%	**	01.01.2015

The target for control of HCFC consumption is based on the provisions of Article 5 of the EU Regulation on ozone depleting substances. (Common Position (EU), on which the Council reached unanimous agreement at its meeting of 8 and 9 June 1994 with a view to adoption of a Council Regulation on substances that deplete the ozone layer). The final consumption of HCFCs will not be restricted by the target

group. The Regulation on Leak-proofing of Cooling Installations, dating from March 1993, also applies.

The regulations apply for all mobile and fixed cooling installations with a total compressor power of 500 Watts or more. This includes CFC/HCFC/HFC cooling installations at gas production sites, air conditioning installations, refrigeration units and refrigerators in offices and at offshore production locations. Refrigerators for household use are not included in these regulations.

The use of halons is still permissible after 01.01.1994 for refillable installations, if enough regenerated halons are available. The relevant installation part must be reported to the Halon Bank (installation section), or the company must reserve a certain volume at the Halon Bank (volume section). If the company's own supply is sufficient, reporting is not required. Superfluous halons will only be accepted by the Halon Bank if supply does not exceed demand.

CFCs are used in accordance with statutory analysis methods. These methods will be adjusted as soon as possible, in an international setting, after which CFCs will be replaced by less harmful substances.

Sources:

Montreal Protocol, EC Regulation 594/91 and any changes made to this by the EC Environment Council meeting of 1993, the CFC Action Programme, the CFC Annual Report 1991, the Decree of 5 November 1992 on substances which deplete the ozone layer (Statute Book 1992, 559), and the Decree on Regulations for Leak-proofing of Cooling Installations.

2. Theme Climate change

Section CO_2 and methane emissions

 CO_2

- 20% improvement in energy efficiency in comparison with the 1990 level to be realised by the year 2000.

The following objectives were formulated for CO2 in the NEPP-Plus:

- stabilization of total national emissions in 1994/1995 at the level of 1989/1990;
- a reduction of 3-5% in 2000 with respect to the level in 1989/1990.

Methane

- reduction target 10% in 2000 in relation to the year 1990.

emission 1990 (kTon) reduction target 2000

- CH₄ 83 10%

Effects

 CO_2 :

For the reduction of CO_2 emissions, the Energy Conservation Paper sets the following energy-saving target for the industry: a 20% improvement in energy efficiency by the year 2000 in comparison with 1989. This means that an average energy efficiency improvement of more than 2% must be realised every year until the year 2000.

In the Energy Conservation Follow-up Paper, the government makes a commitment to the assumptions, currently regarded as realistic, that the measures will lead to savings averaging 1.7% per year in the 1989-2000 period, and consequently, a 17% energy improvement in the year 2000. This is enough to realise the target of a 3% reduction in $\rm CO_2$ emissions by the year 2000 in comparison with 1989. The target of a 20% improvement in energy efficiency in the 1989-2000 period will be revised to 19% for the industry as a whole.

An increase in energy consumption in the oil and gas industry must be taken into account, particularly for the 2000-2010 period, in view of the need to install extra compressor power in order to meet demand for gas. Extra compressor power is needed in view of the declining pressure in the gas fields and the necessity of gas storage; this in itself does not affect the realisation of the energy-efficiency target.

The oil and gas industry will consider the extent to which flaring of natural gas can be reduced.

The Minister of Economic Affairs and NOGEPA have signed a Declaration of Intent with the oil and gas industry for a long-

range agreement (MJA) on improvements in energy efficiency, aimed at realisation of the general energy efficiency targets. The MJA target depends partly on the review of energy saving potential in the oil and gas industry.

The review is based on the following underlying assumptions:

- The application of process installations and equipment in accordance with the best available technology in terms of energy efficiency, for both new and existing installations;
- The implementation of energy conservation measures in the organization;
- Assistance in the investigation/development of new energy conservation methods;
- Implementation of profitable measures (`no regret' measures).

Methane

The Climate Change Paper anticipates that existing policy will lead to a 10% reduction in methane emissions from the 1990 level by the year 2000. This policy does not include any measures relating to the oil and gas industry.

A special arrangement for methane emissions will be included in the NER, in consultation with the oil and gas industry. These measures will be included in the CEPs and are aimed at restricting methane emissions through leakage and venting. NOGEPA feels that this could lead to a 40% reduction in methane emissions by the year 2000, in comparison with the base year for the oil and gas industry (1990).

Sources: NEPP, NEPP-Plus, NEPP-2, Energy Conservation Paper, Energy Conservation Follow-up Paper and final report of the DORN project group A7 `Atmospheric Emissions', September 1993.

3. Theme Acidification

 $\overline{\text{Section}}$ SO_2 and NO_x emissions

<u>Targets</u> The following reduction targets have been set for the oil and gas industry, in comparison with 1990:

	emissions	1990	(kTon)	2000	2010
SO_2	0.7			80%	90%
NO_{\times}	9.5			55%	90%

The oil and gas industry makes note of the following reservations regarding the above targets, which are taken from government policy for $\text{NO}_{\text{x}}.$

With the implementation of existing technology the sector expects to realise a 10-20% reduction in NO_x emissions from the 1990 level by the year 2000, and a 40-50% reduction by 2010. This expectation is based on emission profiles drawn up for the sector and additional assumptions on reduction possibilities for existing offshore installations (efficiency measures, motor management systems). Although in principle, the investigation of the technological and economic potential for realisation of the IETP, as referred to in Section III, Paragraph 4.e of the Declaration of Intent, and the technological development expected as a result, will create scope for further reductions in emissions, it is uncertain under present circumstances whether the targets can be realised, partly because of the limited technological and economic possibilities for reductions and the need to install extra compression capacity in the 2000-2010 period to meet demand for natural gas.

Effects

The oil and gas industry expects to reduce SO_2 emissions by 80% of the 1990 level by the year 2000, and by 95% in 2010. The targets for NO_x emissions are related to the base year, 1990. This is because reasonably reliable emission figures are available only for 1990.

Furthermore, indirect SO_2 emissions were reduced by more than 95% between 1985 and 1990 as a result of the construction of the gas scrubbing plant in Emmen. The H_2S content of natural gas consequently fell substantially, leading to a significant reduction in SO_2 emissions by end users.

The Decrees on Emission Requirements for Combustion Installations (BEES) apply to combustion emissions from onshore installations. For combustion emissions which are not regulated by the BEES, such as those from offshore installations, the best available technology will form the basis for the implementation of the emission reduction measures.

The best available technology to limit NO_{x} emissions from onshore and offshore installations will be defined in more detail in a

special arrangement, within the framework of the NER. The government and NOGEPA will adjust the NER in line with technological circumstances within the oil and gas industry. Atmospheric emissions of methane, ${\rm SO_2}$, ${\rm NO_x}$ and VOS will also be covered by the NER.

Sources:

Working Plan on Acidification, NEPP, NEPP-Plus, NEPP-2, final report of the DORN project group A7 on `Atmospheric Emissions', September 1993, BEES, NER.

$\begin{array}{ccc} \textbf{3.} & \underline{\textbf{Theme}} & \textbf{Acidification} \\ & \underline{\textbf{Section}} & \textbf{VOS emissions} \end{array}$

<u>Targets</u> The following reduction targets, in comparison with the 1990 levels, have been set for the oil and gas industry:

emission 1990 kTon 2000 2010 VOS 23.5* 55% 80%

NOGEPA makes note of the following reservations regarding the targets for the year 2000:

Based on the emission profiles drawn up by the industry, implementation of the best available technology is expected to reduce VOS emissions by less than 55% by the year 2000. Although in principle, technological development affords prospects of meeting the target, under present circumstances it is not certain that the targets can be met, in view of the large number of (mostly small) emission sources and the limited technological possibilities for existing installations.

Effects

The targets for these emissions are related to the base year, 1990. This is because reasonably reliable emission data were not available until 1990. A special arrangement will be developed as part of the NER, stipulating the best available technology for onshore and offshore installations. The industry could also join the KWS 2000 covenant.

The government and NOGEPA will adjust the NER in line with technological circumstances within the oil and gas industry. Atmospheric emissions of methane, SO_2 , NO_x and VOS will also be covered by the NER.

 * NOGEPA has indications that the stated VOS emission level is too low.

Sources:

NEPP, NEPP-2, final report of DORN project group A7 `Atmospheric Emissions', September 1993.

4. Theme Dispersal Section Discharges/emissions of priority substances offshore

4.1 Heavy metals and benzene in production water

Targets The following reduction targets, in comparison with the 1990 levels, have been set for the oil and gas industry:

Dis	charges 1990	2000	2010
Mercury	44 kg	70%	90%
Cadmium	70 kg	70%	90%
Lead	2 tons	70%	90%
Zinc	23 tons	50%	80%
Nickel	470 kg	50%	80%
Benzene	70 tons	60%	60%

Comparison of these quantities of heavy metals and benzene discharged offshore in production water (on the basis of the results of the cumulative calculation method of the DORN project group A3) and industrial discharges to Dutch fresh surface water indicates that the offshore discharges of mercury, cadmium, lead, zinc, nickel and benzene in production water represent more than 1% of total discharges (8.3%, 1.8%, 9.6%, 18.5%, 2.5% and 68% respectively).

Comparison of the quantities of heavy metals and benzene discharged offshore in production water on the Dutch Continental Shelf (1988 figures) indicates that offshore discharges of mercury, cadmium and zinc in production water represent less than 1% of the total discharges (0.4%, 0.1%, 0.2% and 0.5% respectively).

The reduction targets for 1995 are no longer considered meaningful; targets therefore focus on the years 2000 and 2010, and are related to the base year 1990, rather than 1985. The reason is that emission figures are available only from 1990 onwards.

Benzene is a priority substance and is included in the most hazardous category. However, the A3 report shows that benzene biodegrades fairly quickly in seawater and the current understanding is that the effects are limited.

NOGEPA notes the following with regard to the above targets:

It is concluded from the studies conducted by the sector in consultation with the government (DORN project group A3) that:

1. For the expected bio-accumulation of micro-pollutants under exposure conditions varying in terms of time, it is hypothesised that the current risks of acute toxicity on the Dutch Continental Shelf will be almost negligible for the majority of gas/condensate platforms. These platforms discharge low volumes of production water.

For oil platforms and high volume gas/condensate platforms, the risks will be limited to a zone within $140\,\mathrm{m}$ or $80\,\mathrm{m}$ respectively of the discharge source.

- 2. Generally speaking, efficient removal of heavy metals from production water is very difficult at this stage, at present no technologies are available for reducing discharges in production water of the substances shown in the table.
- 3. The volume and composition of production water differs from one field to another. There are substantial differences in the design and operation of oil/gas treatment installations and possible emission reduction measures therefore depend largely on the installation (tailor-made).

For the preparation of the second round of CEPs, a new study will be carried out on emission reducing measures (availability and applicability of treatment systems on platforms, injection). The government and NOGEPA will jointly develop emission guidelines or a description of the best available technology, which will be included in future guidelines of the Coordinating Committee for the Implementation of the Pollution of Surface Waters Act. The experiences of the enterprises in preparing CEPs, together with experiences from other maritime regions and other relevant branches of industry, will serve as input for these guidelines.

4.2 Oil

Target: Oil discharges to be avoided as far as possible.

Effects:

In 1995, the average monthly volume of aliphatic hydrocarbons permissible in discharges of production water and rain/scrub/wash water will be laid down by law as 40 mg/l for all installations. The norm does not relate to aromatic hydrocarbons; the reduction target for these substances is based on the best available technology.

Since 1986, there has been a considerable reduction in discharges of mineral oil in drilling cuttings (1996: 4,553 tons; 1991: 142 tons). Discharges of drilling cuttings containing mineral oil were banned in 1993.

If the amount of oil discharged in production water shows any significant increase in subsequent years, a study will be conducted into possibilities for stabilising these discharges at the 1990 level.

4.3 Radioactivity

Target:

The Maximum Permissible Risk (MPR) level (risk of fatalities) to which individuals may be exposed, being 10^{-6} per annum per activity, should be achieved as soon as possible.

Effects:

The MPR level for existing activities must be realised as soon as can reasonably be expected, and no later than the year 2000. New (sub-)activities based on existing technologies with a risk level in excess of 10^{-6} per annum per activity will not be permitted.

For activities with a risk level of less than 10^{-6} , risks will be reduced on the basis of the ALARA principle (as low as reasonably achievable).

4.4 Organo-halogens

Targets:

The Ministerial Meeting of OSPARCOM (Paris, September 1992) agreed that emissions of organo-halogens (both atmospheric and in water) which are toxic, persistent and bio-accumulative, must be substantially reduced, with elimination as the final goal.

On the basis of agreements reached on the execution of the OSPAR Convention (Group on Oil Pollution, The Hague, February 1994), it has been agreed that the quantities of these substances used at offshore installations should be identified, as well as the applications and, where relevant, the reduction measures in the offshore industry. This should be developed in more detail in the CEPs.

4.5 PAHs

The International Ministerial Meeting (IMM, Copenhagen, December 1993) agreed to investigate the significance of, and potential measures to reduce discharges of PAHs.

On the basis of agreements reached for the execution of the OSPAR Convention (Group on Oil Pollution, The Hague, February 1994), it has been agreed that the volumes of PAHs discharged from offshore installations should be identified, as well as the sources and types of emissions (e.g. flaring, production water, testing, spills, chemicals, waste) and, where relevant, the possible reduction measures in the offshore industry. This should be developed in more detail in the CEPs. The 16 EPA PAHs are significant in both atmospheric emissions and emissions into water.

4.6 Discharge/use of added chemicals

Targets:

Discharges of hazardous substances should be discontinued where possible. Use of offshore chemicals should be optimised, and environmentally hazardous substances should be phased out as far as possible.

Effects:

In the future, the risk determination model (CHARM) being developed in an international framework can be used for the evaluation of discharges of offshore chemicals in systematic assessments of new and existing substances. Dutch authorities will develop discharge norms on the basis of this model.

4.7 Secondary raw materials

Emissions of hazardous substances through the use of secondary raw materials should be reduced.

General effects of offshore dispersion:

As a general target, the NEPP stipulates that no MPR levels may be exceeded by the year 2000, and negligible risk levels should be the aim by 2010 (see also the Risk Management Paper).

The NEPP-plus, the Third Water Management Paper, the Final Declaration of North Sea Ministers Conference, the NAP and the WSP give the percentages, based on present views, by which emissions must be reduced in order to meet the above targets. This implies that other measures should be considered if the reduction targets cannot be achieved through the existing guidelines and instruments.

For priority substances (see the MPV 1988-1991, page 31, for a definition), the NEPP sets a general target of a 50% reduction by the year 2000. Where possible, a further reduction percentage is determined for the (design) limit and target values. For the priority substances for which this is not (yet) possible, the NEPP 50% target applies for emissions into the air and water. A 99% target is set for banned substances, or substances for which a ban is in preparation. General emission targets have been prepared for the year 2010. The NEPP requires a reduction of 80% in heavy metal emissions, and of 80-90% in hydrocarbon emissions, by 2010. In order to realise the target scenarios of the Third Water Management Paper, heavy metal emissions must by cut by 50-90%, and emissions of organic micro-pollutants somewhere in the order of 90%.

Other reduction percentages may be needed in a subsequent NEPP, as limit and target values may still become available for certain substances. Within the framework of the general NEPP targets, adjustment of the targets may also be needed in a subsequent NEPP as a result of technological development.

Sources:

NEPP, NEPP-Plus, Third Water Management Paper (tasks for reduction targets for the industry as a whole, (SBI 20-30) by environmental policy theme), Regulation on Discharges of Mixtures Containing Oil (effective as of 1 July 1994), Risk Management Paper, NAP, Base Documents EC, OSPAR.

5. <u>Theme</u> Over-fertilization

This theme is not relevant for the oil and gas industry, given the nature of the emissions and wastes.

$\begin{array}{ccc} \textbf{6.} & \underline{\textbf{Theme}} & \textbf{Disposal} \\ & \underline{\textbf{Section}} & \textbf{Waste flows} \end{array}$

Targets The following has been formulated for the industry:

The amount of waste to be dumped, incinerated and discharged in 2000 should be reduced by 40% in comparison with 1990.

Offshore waste flows

Some of the mud used offshore is separated from the waste flow immediately and is prepared for recycling, either at the location or by the supplier. Used substances can be recovered from the remaining waste flow and recycled. The non-useable portion of the water based mud (WBM) and the drill cuttings are dumped in the sea. The non-recyclable part of the oil based mud (OBM) is incinerated. Much of the remaining oil in drill cuttings can be recovered.

Size of waste flows	Size	of	waste	flows
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Mud				
year		1990	2000	2010
	WATERBASED			
	drilled (km)	152	65	53
	total use (tons)	152,000	70,000	54 , 000
	to be recycled (tons)	133,000	65 , 000	50 , 000
	to be discharged (tons)	104,000	50,000	34,000

A proportion of drill cuttings ends up in the mud waste flow.

OIL BASED			
drilled (km)	13	3	3
total use (tons)	6,650	1,800	1,800
to be recycled (tons)	3,500	1,150	1,150
to be burned (tons)	1,700	700	700
to be discharged (tons)	17	0	0
OTHERS			
drilled(km)	0	10	10
total use (tons)	0	5,600	5,600
to be recycled (tons)	0	5,300	5,300
to be discharged (tons)	0	1,400	1,400

(If discharging is environmentally unacceptable, OBM will be used.)

Drill cuttings			
year	1990	2000	2010
WATERBASED			
produced (tons)	59 , 000	28,000	24,000
to be discharged (tons)	28,000	28 , 000	24,000
OIL BASED			
produced (tons)	3,250	1,000	1,000
to be dumped (tons)	752	0	0
recycled oil (tons)	2,500	1,000	1,000
to be dumped (tons)	2,200	880	880

(After 1995, it is expected that oil will be removed from oil based drill cuttings before dumping on land. A small portion can possibly be used for landfill.)

OTHERS

produced (tons)	0	4,200	4,200
to be discharged (tons)	0	4,200	4,200

(If discharging is environmentally unacceptable, then OBM will be used; non-recyclable drill cuttings and mud will be transported to shore for processing. In this case, the use of OBM may be chosen.)

Waste flows onshore

After an expected peak in 1996/1997 the number of kilometres drilled onshore will gradually diminish. Much of the recovered mud can be recycled. Some of the used salts can be recovered from the remainder, and a portion can be used to cover landfill sites, instead of imported bentonite or clay. The residue is non-recyclable, in view of the salts it contains, and must be dumped.

Size of waste flows Waterbased

M	u	d
_		_

year	1990	2000	2010
drilled (km)	57	93	85
total use (tons)	40,000	64,000	59,000
to be recycled (tons)	15,000	37,500	35,000
topsoil (tons)	0	3 , 750	3,400
to be dumped (tons)	14,500	6,600	3,400

(A portion of the drill cuttings will end up in the mud waste flows.)

Drill cuttings			
produced (tons)	29 , 000	47,000	43,000
recycled salts (tons)	0	21,000	21,000
topsoil (tons)	0	13,000	13,000
to be dumped (tons)	29 , 000	13,000	13,000

Effects

During the drilling process, mud is used and drill cuttings are produced.

The amounts depend on total kilometres drilled and the development of existing drilling technologies. The prognoses for the volumes of drilling fluid and drill cuttings are only indicative, as the number of kilometres drilled is not certain.

Increasingly, WBM will be recycled. The possibilities for recycling WBM from onshore drilling operations will also grow in the future. This could include the use of WBM to cover landfill sites which need to be watertight, or applications in construction materials. WBM used offshore is discharged into the sea if it cannot be economically recycled.

A study conducted by NIOZ into the effect of WBM and drill cuttings on marine organisms in the Frisian Front indicated that no negative effects are observed soon after dumping, or after one year. The specialty chemicals added to drilling fluid can have detrimental effects on the marine environment. However, these chemicals are assessed before their use is permitted (see the theme `Dispersal).

Discharging of OBM and cuttings is prohibited. The oil is recovered as far as possible, and recycled. Cuttings containing oil are treated thermally and then used for landfill or as construction material. Drilling fluids which are neither water based nor oil based are rigorously tested for environmentally damaging effects before being permitted.

Priority waste flows

Specific targets have been formulated for 29 priority waste flows. None of these flows are particularly important in the oil and gas industry except for grit. The target for the grit used in maintenance of offshore installations is recovery of used grit, followed by removal for processing.

Hazardous waste

In addition to the categories based on the specific composition of waste flows, or on the processes that generate waste flows, the hazardous waste category is an important one. `Hazardous waste' refers here to the waste flows described in the Qualification of Hazardous Wastes Decree (BAGA).

The industry will dispose of hazardous wastes in accordance with the prevailing rules, making use of the specialist companies and institutions that hold the required permits. The industry will control the generation of hazardous waste as far as possible (quantitative prevention) and will restrict mixing of waste flows to a minimum. Permission to export hazardous wastes is tested for compliance with the Regulation on supervision and control of waste shipments within, to and from the EU (259/93/EEC), in accordance with the Long-Range Plan for Disposal of Hazardous Wastes.

Targets have already been set as part of waste policy for much of this hazardous waste.

In view of the processing costs, it is assumed that individual enterprises are already making a maximum effort to reduce hazardous waste.

The oil and gas industry is currently investigating the possibilities for recovering mercury from filters and sludge from installations.

Sources:

NEPP, NEPP-Plus, Prevention and Recycling Paper, Survey of specific wastes in the Dutch oil and gas industry, base year 1990, RIVM Report No. 736201027, NIOZ report 1993-5: `A study on possible effects of WBM cutting discharges in the Frisian Front area (North Sea)', NIOZ report 1993-16: `A study on possible effects of WBM cutting discharge in the North Sea, one year after termination of drilling', Long-Range Plan for Disposal of Hazardous Wastes.

6. Theme Removal

Section Soil protection

Territorial

The target for dispersal of pollutants in the soil due to direct emissions into the soil, is `zero emission'. This target is not related to the return of production water and/or drilling mud/drill cuttings to their original or corresponding formation.

Onshore surface facilities are subject to the WM. Licenses issued under this Act can include soil protection requirements such as fluid-proof floors, and the execution of the zero situation investigation can be prescribed.

Mining legislation covers subsurface works and installations, in as far as wastes originating from outside the installation or injected chemical wastes are concerned. In accordance with Article 83 of the Soil Protection Act (WBB), General Administrative Orders (AMvBs) for the implementation of Articles 8 through 13 of the WBB do not apply to subsurface works and mining installations, unless the AMvB in question provides otherwise.

The following AMvBs apply, pursuant to the WBB:

- Decree on Storage in Underground Tanks (Statute Book 1993, 46), the `BOOT' Decree; (in principle, this AMvB relates to all branches of industry);
- Dumping Decree, Soil Protection (Statute Book 1993, 55) does not apply to dumping activities in underground works or installations belonging to mines. Such dumping activities are assessed in licensing procedures pursuant to the WM;
- Discharge Decree, Soil Protection (Statute Book 1990, 217) for company discharges of cooling water and waste water in the soil (to be incorporated in the 1964 Mining Regulations);
- Compulsory Soil Surveys Decree (Statute Book 1993, 602) can apply to mining installations;

Furthermore, AMvBs in preparation will be taken into account as far as possible (where relevant to the oil and gas industry), such as:

- The Construction Materials Decree, Protection of Soil and Surface Waters
- The Storage AMvB based on the 1903 Mining Act
- In anticipation of the development of a storage decree and a decree on the zero situation for research, guidelines will be developed which will also apply for installations.

Finally, the general soil protection requirements based on Article 14 of the WBB apply to all activities which represent a threat to the soil.

In the coming years, and in any event before surveys of industrial soil pollution are conducted for clean-up purposes in the BSB operation, the enterprises must analyze the risks of soil pollution at the various company installations. In the CEPs and the annual progress reports on these, individual enterprises will report the results of these analyses to the Minister of Economic Affairs, determine the resulting soil protection measures and implement these by the year 2000 at the latest, and in the case of clean-up operations, simultaneously with such operations. If new soil pollution occurs as a result of company activities or an unusual incident, the company must take immediate measures to control the pollution as far as possible.

In 1994, the main points of soil protection policy will be further developed in the 1995-1998 soil protection and soil clean-up implementing plan. This will state where further additions are required to the AMvB programme from the Soil Clean-up and Industrial Sites Ten-Year Scenario.

Effects

The Decrees based on the WBB could include the obligation to guarantee financial security for compliance with the regulations pursuant to the measure, or to provide liability coverage for damage resulting from soil pollution (Article 17, WBB). This is already applicable in the BOOT Decree and the Dumping Decree. The WM provides that financial security (insurance) can be required for installations that have caused environmental damage.

Soil clean-up and prevention must be coordinated to a certain extent. For installations that will soon face soil clean-up (e.g. due to the first phase of the BSB operation), it seems obvious that the soil-protection measures should be realized at the same time as the clean-up operation.

However, for installations granted a postponement for the start of clean-up operations, and installations that will not be involved in the BSB operation until a later date, the consideration of the preventive regulations may not be postponed for an (as yet) indefinite period (see also the Ten-year Scenario Soil Clean-up and the Cabinet's viewpoint on this: Second Chamber of Parliament, 1989-1990 Session, 21557, No. 2).

In these cases, the report to the Minister of Economic Affairs of the analysis results of the risks of soil pollution provides the opportunity to subsequently resort to the actualization of the soil-protection regulations in the licence, on the basis of environmental legislation.

The licensing authority can subsequently consider whether there are grounds to provisionally prescribe soil-protection measures, applying the programming of the BSB operation in its current form and the environmental-technology life applicable to soil-protection measures. If clean-up is to commence soon, the question of whether there are

grounds to allow some postponement of the enforcement of (part of) the preventive regulations can be considered.

Sources:

General Environmental Management Regulations and AMvBs based on the WBB.

6. <u>Theme:</u> Removal

Section: Protection of the seabed

Current legislation restricts the discharge and use of chemicals and mud. Measurements at locations where WBM has been dumped indicate that no clear negative effects of the chemicals in the mud can be observed. For the assessment of the use and dumping of offshore chemicals, a system (CHARM) will be developed within the context of OSPAR.

For the use of new types of WBM with a significantly different toxicity and/or degradability and new types of other mud, a monitoring programme will be carried out in accordance with the international developments mentioned above. The Consultative Group will agree the conditions and guidelines for the execution of such a monitoring programme.

Source: NIOZ reports 1993-5 and 1993-16

6. Theme Section

Removal Offshore installations

Removal of offshore installations

The removal of out-of-service offshore installations which are not considered for any other use is provided for in mining legislation (Mining Act/Pollution of Seawater Act (WVZ)) and international agreements.

Sources:

Mining Regulations, Dutch Continental Shelf, ${\tt WVZ}$.

6. Theme Removal

Section Soil clean-up

 $\underline{\mathtt{Targets}}$ The following has been formulated for installations in

the sector to which the WM applies:

Enterprises and governments will conduct research into soil pollution and any soil clean-up will be performed on the basis of the final report of the Soil Clean-up Committee on Company Terrains in Use (BSB, Oele Committee) and the Cabinet standpoints on this, as further supervised by the national BSB Steering Group. The tasks will require extra funds from the enterprises. The extra expenses will amount to at least NLG 250 million in 1994 with respect to 1988.

Effects

The BSB has presented a plan of action for voluntary soil clean-up by enterprises. The intention of this plan is to stimulate enterprises to implement their own soil clean-up in the coming decades; the plan is voluntary but not free of obligation and contains the basic principles and rules for a voluntary approach.

The plan is based on the preference expressed by the business community and the government for self-regulation as opposed to statutory regulation. The government will retain legislation as the instrument for regulation of companies that do not wish to participate in the implementation of this plan. The basic principle in this approach is the `multifunctionality' of the soil. However, in practice, situations may arise for which multifunctionality is not feasible. In these cases, a situation must be realized that complies with the current `insulate control and check' (ICC) criteria, based on the specific circumstances at the site. A phased implementation is possible under certain conditions. The costs of research and clean-up are, in principle, borne by the enterprises. Companies must take temporary safety measures in advance if necessary.

Implementation of the BSB operation takes place decentrally, in view of the responsibilities of provincial authorities (including the four large municipalities) and the large number of locations. Special BSB foundations will be set up with representatives of the Chambers of Commerce and enterprises, and in which the provinces/VNG department will act as observers.

Approximately 30,000 zero BSB identification studies will be conducted in five years. The selection of enterprises will be such that, after five years, about 80% of the total BSB problems (in a financial sense) will have been defined. After the identification studies, installations will again be divided into urgency classes. A maximum postponement will be set for each urgency class, within which further research must be conducted. This will provide more information on the severity and scale of the case.

The government will take a decision on the need for and urgency of the clean-up. A clean-up study must be conducted prior to the cleanup plan, which requires provincial authority approval. In this case the life-time of a field will be taken into consideration.

For installations in the highest urgency class, further research must be conducted following the division into urgency classes. In these cases, a maximum deadline will be set for the completion of the clean-up operation. These deadlines may not be exceeded for financial reasons.

For installations in the lower urgency class, a clean-up period will be determined in consultation with the provincial authorities.

Temporary safety measures will be implemented, as far as necessary, during phased and final clean-up operations.

Sources:

BSB report and guidelines on soil protection, SDU publisher, The Hague, 1990.

7. Theme Disturbance

Section Noise

Targets The following has been formulated for installations in the sector to which the WM applies:

With respect to `noise', existing policy, as stipulated in the Noise Pollution Act (WGH), the WM and the Circular on Industrial Noise, will suffice.

Effects

For the industry, the above targets mean that the preferable limit values for equivalent noise levels will be consistently tested as 24-hour values. Within the noise zones, the maximum exterior facade impact for permanent installations is 50 dB(A). Further target value testing will be conducted for enterprises that depend on the nature of the residential area and will again be set at a maximum of 50 dB(A). Based on careful governmental deliberations, an exemption can be granted for a higher value. A distinction is made here between existing and new installations. When external facades of noise-sensitive structures are impacted with high noise levels originating from non-industrial sources, a higher (zoning) limit value can be applied on this basis. This is the `reference level of the surrounding noise'.

Furthermore, the aim for permanent installations should be to prevent incidental increases of noise higher than $10~\mathrm{dB}(A)$ for tonal and pulse noises during the period in which this type of noise occurs. Maximum peak levels have been established for permanent installations at 70, 65 and 60 dB(A) during the day, evening, and night respectively. In specific situations indicated in the licence, the maximum day value could be 75 dB(A). In noise control policy, priority is given to recognizable noises or peaks that rise above the equivalent noise level.

The noise restrictions within zones officially came into force after finalization of the zones. A condition set for this operation is full compliance with noise restrictions by 2002 at the latest, in line with the phasing stipulated by the provincial authority. For existing installations requiring permits, which are located at non-zoned industrial terrains, noise pollution at the facades of homes or other noise-sensitive sites must be reduced through the application of the ALARA principle in the WM. The aim here is a 24-hour value of 55 dB(A), or the reference level, if lower, in the year 2000.

Within the noise zones, the limit values stipulated in the zoning decisions and by the Ministry of Housing, Physical Planning and the Environment, in the noise restriction programme, apply. For new installations requiring a permit, the maximum permitted noise load level is $50~\mathrm{dB}(A)$ or the reference level at the facade in question. For temporary installations, the approach to noise will be further developed in the individual CEPs.

Sources:

NEPP, Circular on Industrial Noise, WGH and the 1990-1993 Environmental Programme.

7. Theme Disturbance

Section Noxious odours

 $\underline{\text{Targets}}$ The following has been formulated for installations in the sector to which the WM applies:

Based on research conducted by the sector, taking measures in accordance with the Dutch Emission Guidelines and the Noxious Odours Policy Paper.

Effects

Policy with respect to noxious odours is laid down in the Noxious Odours Policy Paper, which elaborates targets from the NEPP. The general NEPP target for noxious odours for the year 2000 is a maximum hindrance of 12%. However, this target, which has the status of a limit value, cannot be translated as such into `efforts' per company class/group.

A section is included in the Dutch Emission Guidelines on preventive methods (applicable when stench concentration standards are exceeded). This indicates how deviations from the stench concentration standards should be treated. This Paragraph will be adjusted on the basis of the Boers-Wijnberg motion.

In relation to permit procedures, attention will be paid to emissions of noxious odours whenever stench pollution occurs near an installation due to the activities within that installation. The following upper limits apply for stench pollution:

- Severe stench pollution is prohibited. The existence of severe stench pollution will be determined by a standardized survey method, as described in the Noxious Odours Policy Paper.
- If the stench concentration has been qualitatively described in terms of stench units per m³, the following upper limits apply:
 - * Existing situations: the contribution of the installation to the stench concentration near residential areas may not exceed 10 stench units per m^3 as a 98 percentile. The government will apply the ALARA principle to realise a lower norm in permit procedures.
 - * New situations: the contribution of the installation to the stench concentration near residential areas may not exceed 1 stench unit per ${\rm m}^3$ as a 99.5 percentile.

In relation to permit procedures, the government will apply the ALARA principle to realise a lower set of standards.

Sources:

NEPP, Noxious Odours Policy Paper (Second Chamber No. 22715 Nos. 1 through 7), NER (Boers-Wijnberg motion, Ruigrok-Verreyt, Second Chamber 22715 No. 5).

7. Theme Disturbance Section External safety Targets

- 1. For installations in the sector to which the Serious Accident Risk Guideline applies, the need for external safety reports will be indicated. In addition, the following targets have been formulated with regard to risk levels: New situations: For individual risk, compliance with the MPR $10^{-6}/\text{year}$ level and ALARA; for group risk, compliance with the MPR $10^{-5}/\text{year}$ level (10 or more) deaths, MPR $10^{-7}/\text{year}$ (100 or more deaths). Existing situations: For individual risk in 2000, compliance in as many situations as possible with an MPR of $10^{-6}/\text{year}$; for group risk, in 2000, compliance in as many situations as possible with an MPR of $10^{-7}/\text{year}$ (100 or more deaths).
- 2. The following has been formulated with respect to the Post-Sandoz situation for installations in the sector:

Compliance with CPR 15-1 and CPR 15-2 as of 1.1.1995, to the extent that this does not violate with safety requirements.

Effects

Risk levels, new situations

As stated in the Risk Management Paper, in new situations (new residential buildings and/or new company installations), the following risk limits apply for individual risk (probability of death) for exposure to risks from one location: The MPR level for the individual risk-contour = $10^{-6}/\mathrm{year}$.

Assuming that the best available technologies have already been applied at the location in question, the CEP must consider whether additional risk-reducing measures should be taken (in principle, at the source). These measures must comply with the ALARA principle. ALARA is a process designed to realise the lowest reasonably attainable damage probability in a given situation.

The individual risk is calculated for an individual at a certain point. In practice, this usually means an individual at a certain point (residence or other comparably vulnerable objects), 24 hours per day, in the vicinity of a company. The limits are applied in new situations to existing and future residential buildings, and to other comparably vulnerable objects in the vicinity of existing installations.

The limits that must be taken into consideration with respect to group risk are: the MPR level during calamities is $10^{-5}/\text{year}$ at n=10 or more deaths, and $10^{-7}/\text{year}$ at n=100 or more deaths. The government nevertheless has the possibility of deviating from these values for sound reasons.

For existing installations, the following situations could occur in the case of extension of the installations:

- a. The individual and the group risk of the existing installation exceed the standards for new installations before the extension of the installation has been realized. In that case, neither the individual nor the group risk may increase, even if the discretionary powers mentioned above apply.
- b. The individual risk of the existing installation exceeds the standards for new installations before the extension of the installation has been realized. The group risk of the existing installation does not exceed the standards for new installations. Only the individual risk may not increase. The group risk may not exceed the standards for the group risk in the new situations due to the extension of the existing installation, taking the discretionary powers into account.
- c. The group risk of the existing installation exceeds the standards for new installations before the extension of the installation has been realized. The individual risk of the existing installation does not exceed the standards for new installations. Only the group risk may not increase due to the extension of the installation. The individual risk may not exceed the standards for the individual risk in new situations due to the extension of the existing installation, taking the discretionary powers into account.
- d. The individual and the group risk of the existing installation do not exceed the standards for new installations. After extension of the existing installation, the installation must comply with the standards for new installations.

Risk levels in existing situations

For as many existing situations as possible, the aim is to achieve an MPR level of $10^{-6}/\mathrm{year}$ in the year 2000. For the group risk, the MPR level in existing situations in 2000 should be $10^{-5}/\mathrm{year}$ with n = 10 or more deaths, and $10^{-7}/\mathrm{year}$ with n = 100 or more deaths. The limits also apply in existing situations to existing residential buildings and other similarly sensitive objects.

Sources:

NEPP and Risk Management Paper, approach to risk in environmental policy (Second Chamber 1993-1994, 22666 Nos. 3 and 4) appendix to the letter to the JPO and VNG on external safety policy, dated 13 June 1994.

Post-Sandoz

Depending on the properties and volumes of the substances, and the sector, measures must be taken with respect to the storage and packaging of hazardous substances, pesticides, and chemical waste in line with the guidelines developed for this by the Committee on the Prevention of Disasters by Hazardous Substances (CPR 15-1 and CPR 15-2). The enterprises involved must improve storage methods for

hazardous substances, pesticides and chemical waste by 1.1.1995 at the latest. This must not be at the expense of safety requirements.

Sources.

NEPP, CPR 15-1, CPR 15-2, and the circular dated 31 August 1992 on CPR 15-2.

8. <u>Theme</u> Dehydratation

Given the nature of its activities, this theme has little relevance to the oil and gas industry. In cases arising (e.g. steam production) the use of surface water takes precedence over the use of ground water or drinking water.

9. <u>Theme</u> Waste control

No targets have been formulated for waste control in general policy. Control of wastage of oil and gas reserves, and effective and optimum production of established oil and gas reserves, are taken into account in the implementation of targets for other themes.

10. <u>Theme</u> Environmental care

 $\underline{\text{Targets}}$ The following target has been formulated for the enterprises in this sector:

By 1995, all enterprises must operate an effective environmental management system tailored to the business in question, including registration of emissions.

Source:

Paper on Internal Corporate Environmental Management.

Appendix II

PROCEDURAL AGREEMENTS FOR BRANCH CONSULTATION

1. <u>Branch consultation</u>

- 1.1 The Consultative Group, as referred to in Section III, Paragraph 1, Definitions, of the Declaration of Intent, shall consist of representatives of:
 - a. The Ministry of Economic Affairs, The Ministry of Housing, Physical Planning and the Environment and The Ministry of Transport and Public Works,

jointly to be referred to as `the government'

- b. The oil and gas industry.
- 1.2 a. The Consultative Group shall install a project group.
 - b. Decision-making in the Consultative Group shall be prepared and implemented by the project group.
 - c. The project group shall consist of representatives of:
 - the government;
 - the oil and gas industry.
 - d. The Consultative Group may decide to alter the composition of the project group.
- 1.3 The Consultative Group is charged with:
 - a. Coordination of work and activities at branch level, serving to implement this Declaration of Intent.
 - b. Discussion of problems of a general nature arising in practice in relation to the implementation of this Declaration of Intent, and discussion of solutions.
 - c. Monitoring of progress in the development and implementation of the IETP.
 - d. Presentation of proposals for the modification of the IETP and other agreements made in this Declaration of Intent, in the light of the overall efforts made by the oil and gas industry in relation to environmental matters.
 - e. Revision of Appendix V.
- 1.4 The Consultative Group shall report on its activities to the Minister of Economic Affairs each year, and shall forward copies of its reports to the parties concerned. The reports shall be open for public inspection. They shall also be submitted to the NMP Support Committee for information, enabling this Committee to form an opinion on the execution of this Declaration of Intent.
- 1.5 The Consultative Group and/or the project group may install working groups to develop parts of the integrated environmental policy, as far as relevant to the execution of this Declaration of Intent. The Consultative Group shall stipulate the mandate, composition, working methods and reporting requirements of each working group on its installation. The Consultative Group shall prepare annual estimates of the financial resources required for research.

The costs of any research commissioned by the Consultative Group shall be borne jointly by the government and the oil and gas industry. Further agreements on research funding shall be made by the Consultative Group on this basis. The costs of the Consultative Group, the project office and any working groups shall be borne by the Ministry of Economic Affairs. Each party represented in the Consultative Group shall bear the personnel costs and the travel and accommodation expenses of its own representatives.

1.6 The Consultative Group shall work to find solutions for problems arising, by agreement. It shall not present proposals to which any party strongly objects.

2. <u>Implementation of consultative structure</u>

- 2.1 In cases arising, the Consultative Group shall determine whether, and if so, which measures are desirable for the branch in relation to a particular subject, in as far as these are not already provided for in this Declaration of Intent. In such cases, the Consultative Group shall also state the preferred form in which the measure should be laid down and shall present recommendations regarding its evaluation. The recommendations shall be submitted to the parties involved in the implementation of the measure at the earliest opportunity.
- 2.2 In the interests of the Consultative Group's assessments of the overall efforts of the oil and gas industry in relation to environmental matters, and the consequences these may have for the execution of this Declaration of Intent, the government shall notify the Consultative Group of concrete plans (regional, national, international, onshore and offshore) for the development and implementation, in general measures, of each area of environmental policy which is of specific interest to the oil and gas industry. NOGEPA shall keep the Consultative Group informed of developments in the sector which may influence the environmental policy pursued for the oil and gas industry.
- 2.3 If a party wishes to consult the organisations it represents on any matter, the required time shall be reserved for consultation. The parties shall make efforts to limit this time as far as possible. The Consultative Group shall make agreements on this if necessary.
- 2.4 The parties shall decide at the earliest opportunity, in as far as their powers allow, whether the recommendations mentioned in Item 2.1 shall be adopted. The Consultative Group shall be notified of such decisions at the earliest opportunity. If recommendations are adopted, the parties shall make an effort to comply with them pending their formal establishment, taking economic factors into consideration in their implementation.
- 2.5 If the government introduces general regulations in order to realise parts of the IETP, these shall be discussed in the Consultative

Group. In the preparation of general regulations, efforts shall be made to uphold the conditions for agreements already reached in the Consultative Group.

- 2.6 If a situation arises in which the parties take a decision which is significantly at variance with the recommendations of the Consultative Group, the Consultative Group may submit recommendations on this basis for the alteration of the IETP or other agreements made in this Declaration of Intent, partly in the light of the overall efforts of the oil and gas industry in relation to environmental matters.
- 2.7 Any alterations of the IETP for the oil and gas sector shall be made in conjunction with the next Water Management Paper, the new NMP and other relevant papers on environmental policy, as far as possible. The relative contribution of the sector in question to overall environmental pollution by the industry shall be taken into consideration when the possibilities for alteration of the IETP are assessed.
- 2.8 Matters or measures which are not included in this Declaration of Intent, but which relate directly to the oil and gas industry or particularly affect that industry, may be raised by the parties in the Consultative Group. The parties shall make efforts to prevent such subjects or measures from significantly obstructing the realisation of the IETP. Moreover, the parties shall make efforts to prevent obstruction of activities or consultation for the realisation of the IETP. If this proves unavoidable, the position in respect of those activities or the consultative process shall be taken into consideration.
- 2.9 If several installations encounter similar problems in the preparation of CEPs and the IMP, or in the assessment of these plans by the Minister of Economic Affairs, this may be discussed in the Consultative Group.

3. <u>Information and confidentiality</u>

3.1 The members of the Consultative Group shall notify each other of the information available to them, in as far as this is in the interests of research and/or policy-making. The members of the Consultative Group shall act with due care in relation to the publication of information and data on the subjects of discussion.

The Consultative Group may agree that no information will be supplied to third parties on matters which are still under discussion, taking the relevant statutory requirements into account.

Consultative Group members shall maintain the confidentiality of all confidential information supplied, unless required by law to report it. Violation of confidentiality agreements in relation to

recommendations for measures may lead to reconsideration of such recommendations.

Appendix III

Company Environmental Plan, Industry Environmental Plan and annual report

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CEP, IMP and Annual Report

1. Contents of the CEP

- 1.1 The CEP to be drawn up by each company for each installation or group of similar installations shall at least include the following sections:
 - a. A description of the `zero situation', i.e. the level of environmental pollution caused by the installation(s) in the base year to which the IETP targets relate, as well as the level of environmental pollution at the time when the plan is published.
 - b. An overview of reductions in environmental pollution already achieved in the past in relation to the relevant base year, or which will result from policy already implemented or included in licences or other agreements with the government.
 - c. An overview of additional reductions in environmental pollution from the installation(s) planned as a contribution to the realisation of the IETP, and the schedule for such reductions. If a CEP is drawn up for a group of similar installations, the company will indicate the measures and the phasing thereof per installation in the CEP.
 - d. Measures and arrangements already applied, or to be applied in relation to Item c and, where applicable, Item b.
 - e. A description of any analysis to be performed by the company regarding the possibilities for reducing environmental pollution caused by the installation(s), and any deferred measures to be implemented on the basis of such an analysis.
 - f. A statement of any problem of a general nature which the company regards as an obstacle to its contribution to the realisation of the IETP; such problems could relate to the funding of measures, a deterioration in the company's competitiveness, total return on invested capital or continuity on the basis of profitability and technological knowledge.
 - g. Any statements or assurances expected from the Minister of Economic affairs regarding the implementation schedule for the CEP.
 - h. An emission registration system, still to be developed in the Consultative Group.

The CEP must also include the necessary explanatory notes and arguments in support of all statements listed in Items a to g, as well as an overview of research into alternatives and the reasons for the choice of reduction measures proposed as a result. The cost effectiveness of these reductions should also be discussed. Departures from the above are possible on the basis of special circumstances at the installation(s), if the company and the government authorities concerned reach an agreement to this effect for the installation(s) in question.

1.2 <u>Contents of the IMP</u>

The IMP drawn up by NOGEPA, which is based on the CEPs of the enterprises participating in the covenant, shall include the following sections:

- 1. An aggregated overview of all enterprises and the expected results of the CEPs, presented in a way that enables comparison with Appendix I of the IETP.
- 2. An overview of the studies, measurements, research etc., which could be carried out for the whole branch. This will be reported in the CEPs.

2. <u>Procedure for completion and review of the IMP, CEPs and Annual Reports</u>

- 2.1 In order to implement environmental policy at the installation level and provide a detailed explanation of the contribution made by the installation(s) to the implementation of the IETP for the sector, the enterprises will draw up CEPs for each installation or group of similar installations, in the form of a result commitment, taking a target-based approach to implementation unless otherwise stated. NOGEPA will draw up an IMP on the basis of the CEPs. These plans will at least include the parts described in Paragraphs 1.1 and 1.2. The IMP will be updated every 4 years, unless the enterprises feel that a shorter interval is required. Each CEP and IMP will build on its predecessor. The CEPs and IMP will cover a four-year period and, where possible, will include forecasts for planned activities for at least the coming four years, and for any further research.
- 2.2 The enterprises, NOGEPA and the Ministry of Economic Affairs will conduct preliminary talks on the CEPs and IMP, at which the target reductions in environmental pollution, priorities and phasing can be discussed.
- 2.3 The enterprises and NOGEPA shall complete drafts of the first CEPs and IMP within eight months of a date set by the enterprise or NOGEPA and the Ministry of Economic Affairs. The Ministry of Economic Affairs and the company can agree a different date for the completion of the draft CEP if this is required in the interests of efficient performance of the task. This date will be no more than 14 months later than the starting date for the preparation of the CEPs and IMP, as agreed by the Minister of Economic Affairs and the enterprises (or NOGEPA). The Minister of Economic Affairs will notify the Consultative Group of any agreed changes of date.
- 2.4 The enterprises and NOGEPA will submit the draft CEPs and IMP to the Minister of Economic Affairs, so that the Minister, by agreement with the Ministry of Housing, Physical Planning and the Environment and the Ministry of Transport and Public Works can inform the relevant enterprise of his views. The Minister of Economic Affairs will notify the enterprises and NOGEPA of his views within three months of the receipt of the draft CEP or IMP.

The enterprises and NOGEPA can then adjust their plans accordingly.

- 2.5 The Minister of Economic Affairs will make the offshore section of the draft CEPs and the offshore section of the draft IMP, with the exception of the parts marked confidential, available for public inspection for a period of four weeks, and will allow third parties an opportunity to present their views on the matter. The Minister of Economic Affairs will consider all comments received when assessing a draft CEP or draft IMP.
- 2.6 The enterprises and NOGEPA shall submit the final CEPs and final IMP to the Minister of Economic Affairs. The Minister of Economic Affairs shall notify the enterprises and NOGEPA of his views on the plans at the earliest opportunity, and within two months of their receipt. The Minister of Economic Affairs plays an appraising role with regard to the CEPs and the IMP. He shall make this appraisal as part of the performance of his tasks relating to the implementation of environmental policy, which include his licensing duties, responsibilities and powers.

The Minister of Economic Affairs must determine the accuracy of the information included in the plans. Together with his counterparts at the Ministry of Housing, Physical Planning and the Environment and the Ministry of Transport and Public Works, the Minister should also ensure that a sufficient effort is made to reduce environmental pollution, within the framework of the IETP, from each installation or group of installations during the planning period.

This assessment will be made without regard to the sequence in which environmental problems are addressed for the theme or the installation or group of installations, unless regional or local environmental problems, or statutory measures require a different approach. In the assessment, the Minister of Economic Affairs shall in any event consider the following:

- a. Have reasonably well-known technologies been adequately investigated in order to reduce environmental pollution caused by the installation or group of installations for the various themes of the IETP as far as possible?
- b. In the light of the IETP, does the CEP or IMP implement existing or agreed policies, programmes and guidelines for the implementation of the government's plans, as described in Section II, Paragraph a, in respect of the installation or group of installations?

The Minister of Economic Affaire may, if required, consult legal advisers on licensing issues for the purpose of this assessment.

2.7 If the Minister of Economic Affairs approves the final CEPs, after consulting the enterprise operating the installation or group of installations in question, he will state whether and how the proposals in the plan will be formalised in terms of any relevant licences. Where formalisation of the proposals in the plan is at issue, in principle, the policy guideline to be followed is that formalisation will take place when the date for the actual realisation of the proposals in the plan or parts thereof is certain. Licences may also be issued subject to further research commitments reported in the CEP. The above does not prejudice any consultation and appeal rights under current licensing procedures, which may mean that proposals in the CEP will be changed.

- 2.8 The enterprises or NOGEPA will submit the final CEPs or IMP to the Consultative Group at the earliest opportunity, accompanied by the assessment issued by the Minister of Economic Affairs.
- 2.9 As stated in Section III, Paragraph 4.m, the Consultative Group will develop a model for annual reports, based on functionality within the framework of the agreements in this Declaration of Intent. The model will be designed to enable monitoring of progress in the implementation of the IETP in the oil and gas sector as a whole. Obviously, the IMP plays an important role in this. The model will show how, on the basis of the above functionality, reports should discuss the implementation of the CEP and progress with regard to the themes of the IETP. Reports will include overviews of actual environmental pollution caused by the installation or group of installations over the past year, of the use of secondary substances for mining, where relevant in terms of pollution from the installation in question, of measures and provisions to be taken in the coming year, and of the resulting reductions in pollution. The model also considers the method for reporting the results of research mentioned in the CEPs and the IMP, and the measures to be carried out on the basis of these results to reduce environmental pollution. In an annual report, an enterprise can include any adjustments of the CEP for the installation or group of installations, which have yet to be formalised in the relevant licences. The reasons for this should also be reported.
- 2.10 The Minister of Economic Affairs will make the reports available to the Consultative Group, accompanied by his assessment, at the earliest opportunity.
- 2.11 After the Minister of Economic Affairs has announced his views on the final CEPs, the final IMP and the reports to the enterprises and NOGEPA, the plans will be made public, except for any parts defined as confidential, together with the views of the government authorities concerned on the plans and reports.

3. Relationship of the IETP to the CEP

The following should be noted with regard to how the IETP steers the CEPs to be drawn up by the enterprises.

3.1 When preparing a CEP, the enterprise should first consider the reasonably well-known technologies which will realise the greatest reduction in environmental pollution at each installation, for each theme of the IETP, without considering the reduction targets of the IETP. Action already in progress for the execution of environmental policy should also be considered, together with the guidelines referred to in Section III, Paragraph 4.i of the Declaration of Intent. Once these have been determined, the enterprise should determine the installation's contribution to the implementation of the IETP, taking into account the economic conditions for the continuity of the installation and the cost-effectiveness of the measures. Moreover, the enterprise can relate the said economic conditions for each installation or group of installations to parts of the installation which can also be operated as independent installations. The IETP can provide guidance in setting these priorities. If, for example, the installation of group installations makes a very minor contribution to the emissions at issue, in comparison with the oil and gas industry as a whole, and controlling such emissions would entail disproportionately high costs, these circumstances can be considered when priorities are set.

In this way, efforts to reduce environmental pollution can be determined in the CEP on the basis of the possibilities for the individual installation.

- 3.2 Because the best available technology is the primary starting point in the IETP themes, in relation to which the company determines efforts to be made for each installation or group of installations, the reduction percentage realised at the installation level will not, in principle, be related to the reduction percentage in the IETP. This applies even if the environmental pollution for a particular IETP theme is caused primarily by a single installation.
- 3.3 The realisation of the IETP will be considered at the branch level, on the basis of the final CEPs and final IMP. This might reveal, for instance, that IETP targets for the year 2000 or 2010 had already been realised in 1995. On this basis, with a view to the preparation of subsequent CEPS, the Consultative Group could then announce that the part of the IETP in question no longer requires any special attention.
 - On the other hand, it may reveal that certain IETP themes are receiving too little attention in the CEPs. In this case, too, the Consultative Group can provide guidance. The IETP, which has been formulated at the branch level, is therefore a test framework for assessing the overall effort of the oil and gas industry to reduce environmental pollution. The CEPs to be drawn up in later years can then be steered on this basis.
- 3.4 The IETP for the oil and gas industry therefore has only a limited value in terms of deducing efforts for individual installations or groups of installations, in the preparation of the first CEPs. This is not the case for the IMP.

- 3.5 The CEPs and the IMP should follow a target approach. The status of the measures included in the CEPs and IMP, and the resulting reduction, may vary. The distinction made in the KWS 2000 project between certain, provisional and uncertain reductions can be followed here.
 - `Certain' reductions relate to measures which can definitely be carried out. The measures are known and there are no constraints to their implementation.
 - Provisional reductions can be realised if one or more explicitly defined conditions are satisfied. The constraints can relate to technological, environmental hygiene or economic (international) feasibility.
 - Uncertain reductions relate to uncertainties which must be eliminated before a final decision can be taken on the application of the measure. Generally speaking, this will require research. At the moment that the uncertainties are eliminated and the limiting conditions are satisfied, the measure can be carried out.
- 3.6 Certain reductions included in the CEP are `certain' in terms of the actual implementation period. It is precisely these measures which lend themselves to formalisation in the current permits. The proportion of measures with `certain' status should be as high as possible.
- 3.7 For uncertain measures, the target approach in the CEPs and IMP involves a clear and concise description of the research needed in order to move from uncertain to certain measures, together with the time span and potential decisions to be taken by the company for the installation on the basis of such research. This can be included in the annual reports on the implementation of the CEP, so there is no need to wait for the next CEP before uncertain measures become certain ones. The CEP should also clearly explain how the company intends to follow up any provisional measures for each installation or group of installations, particularly in terms of time.
- 3.8 As shown by the above, the target approach relates mainly to the measures planned (research, adaptations to the process, investments etc.). The reductions in environmental pollution expected as a result the planned measures may carry a margin of uncertainty in certain situations, even if the measures can be assigned the status of `certain'. The margin of uncertainty should be reported in the CEP.
- 3.9 The proposed approach for the implementation of the IETP is therefore designed to enable a structured and coordinated approach to resolving environmental problems in the oil and gas industry, taking business economic and technological aspects into account at the level of individual installations or groups of similar installations, and at the branch level.

Appendix IV

REGIONAL SPECIFICATION OF THE IETP

The IETP is a plan containing national targets. Preferably, a general approach should be followed. In some cases, however, a regional specification affords the possibility of tightening targets for a specific region where necessary, for reasons of regional environmental quality, while maintaining the IETP agreed nationwide.

Two criteria apply for this purpose. Firstly, the region for which the specification applies must exceed the relevant environmental quality target for certain substances, or hold resources specifically requiring protection, such as nature reserves, protected ground water reserves or other areas afforded special status in national policy documents. Reference can be made here to the limiting values for the year 2000, the target values for General Environmental Quality in 2010, or the target values for Special Environmental Quality applying in the relevant region. Where targets are not exceeded, or there are no areas requiring special protection, the general approach is to be preferred.

Secondly, a special effort to reduce emissions of the relevant substance in a specific region must lead to a noticeable improvement in regional environmental quality, including in relation to other emission-reducing measures in the region.

If this is not the case, then again, the conclusion must be that a departure from the general approach is not very meaningful.

It should be noted that if regional specification is applied, in principle it is not limited to provincial or municipal boundaries.

An estimate for the above criteria, based on current insights, is given below as a guideline for the themes included in the IETP for the oil and gas industry. The themes requiring a local approach, within the nationwide targets, are also shown.

I Climate

CFCs : no regional specification ${\rm CO}_2$: no regional specification

II <u>Acidification</u>

 SO_2 : no regional specification NO_x : no regional specification NH_3 : no regional specification VOS : no regional specification

III <u>Dispersal</u>

III.1 Air

Priority substances

Regional specification in certain areas which permanently exceed limiting values or targets, depending on the percentage reduction of the general target.

Other substances

No regional specification, except in cases involving atmospheric pollution.

III.2 Fresh Water

Priority substances

- a. No regional specification for discharges to large national waters with no specific functions in terms of water quality, such as the Waal, Rotterdam port, the North Sea Canal and the Westerschelde, except in relation to the problems of polluted waterbeds;
- b. Regional specification is possible for discharges into surface waters with a specific function, such as the Maas and various lakes, e.g. the IJsselmeer, and for discharges into small and/or sensitive waters, such as harbours, ponds, brooks, ditches etc.
- c. No regional specification for discharges into sewer systems connected to a sewage plant, except where the operation of the plant may be detrimentally affected, or if there are grounds for this in relation to sludge treatment and/or the function of the recipient surface water;

Other substances

Soil protection policy: no regional specification except for protected ground water reserves and soil protection areas. Soil clean-up: see soil protection policy.

III.3 Salt Water

In connection with potential future (inter) national developments in regional protection, the possibility of regional specification is kept open. Regional specification already applies for the Waddenzee under the `Waddenzee Protection Decree'.

IV Disturbance

Noise: local approach within national targets
Odours: local approach within national targets
External safety: local approach within national targets
Coarse-grained dust: local approach within national targets

V Removal

No regional specification, but coordination with provincial waste disposal structures.